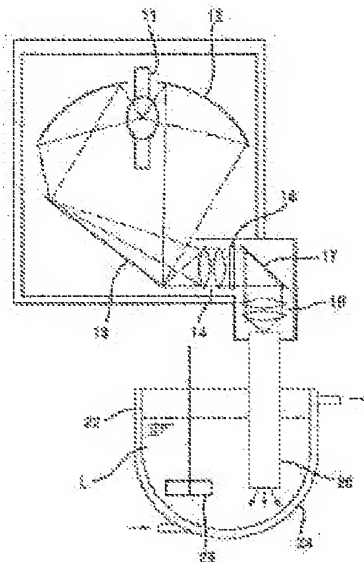


**ULTRAVIOLET IRRADIATION APPARATUS FOR PHOTOCHEMICAL REACTION****Publication number:** JP2000015090 (A)**Publication date:** 2000-01-18**Inventor(s):** DOGE TADAO; WATANABE SATOSHI; KATO MASAHIRO; UBUKAWA HIROHARU; UEHARA MAKOTO**Applicant(s):** CHUGAI PHARMACEUTICAL CO LTD; USHIO ELECTRIC INC**Classification:****- international:** **G21K5/00; B01J19/00; B01J19/12; C07C401/00; G21K5/00; B01J19/00; B01J19/12; C07C401/00;** (IPC1-7): B01J19/12; B01J19/00; C07C401/00; G21K5/00**- European:****Application number:** JP19980188879 19980703**Priority number(s):** JP19980188879 19980703**Abstract of JP 2000015090 (A)**

**PROBLEM TO BE SOLVED:** To cause photochemical reaction efficiently by a method in which when a photo-reaction solution of an organic compound solution is irradiated with ultraviolet light of a specified wavelength to generate the aimed photochemical reaction, the photochemical-reaction solution is with the ultraviolet light through a quartz rod. **SOLUTION:** Light of not only an ultraviolet region but also the far ultraviolet region, visible region, and infrared region are emitted from a discharge lamp 11, and for example, ultraviolet light 254-405 nm in wavelength is obtained by the wavelength selection characteristics of an elliptic reaction mirror 12 and a plane mirror 13. By the transmission of the ultraviolet light of the specified wavelength region through an interference filter 16, ultraviolet light of a narrower wavelength region of 280-320 nm is obtained and made incident to the upper end surface of a quartz rod 20 through a plane mirror 17 and a condensing lens 18. The ultraviolet light of a specified wavelength is transmitted in the longitudinal direction while repeating total reflection in the quartz rod 20 and emitted from the lower end part of the rod 20 to the outside so that a photo-reaction solution L is irradiated with the ultraviolet light.



~~~~~  
Data supplied from the **esp@cenet** database — Worldwide

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2000-015090

(43)Date of publication of application : 18.01.2000

(51)Int.Cl. B01J 19/12  
B01J 19/00  
C07C401/00  
G21K 5/00

(21)Application number : 10-188879 (71)Applicant : CHUGAI PHARMACEUT CO LTD  
USHIO INC

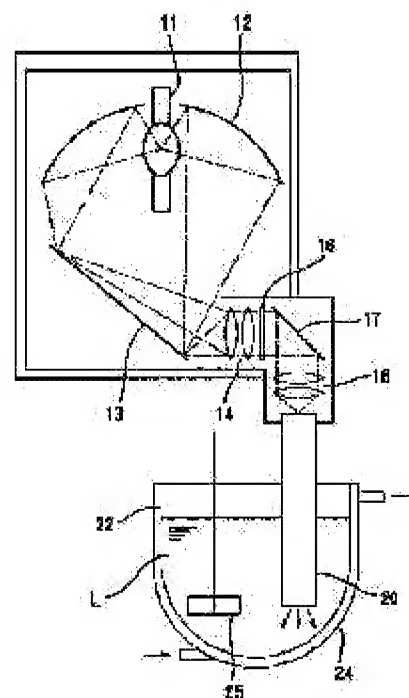
(22)Date of filing : 03.07.1998 (72)Inventor : DOGE TADAO  
WATANABE SATOSHI  
KATO MASAHIRO  
UBUKAWA HIROHARU  
UEHARA MAKOTO

## (54) ULTRAVIOLET IRRADIATION APPARATUS FOR PHOTOCHEMICAL REACTION

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To cause photochemical reaction efficiently by a method in which when a photo-reaction solution of an organic compound solution is irradiated with ultraviolet light of a specified wavelength to generate the aimed photochemical reaction, the photochemical-reaction solution is with the ultraviolet light through a quartz rod.

**SOLUTION:** Light of not only an ultraviolet region but also the far ultraviolet region, visible region, and infrared region are emitted from a discharge lamp 11, and for example, ultraviolet light 254-405 nm in wavelength is obtained by the wavelength selection characteristics of an elliptic reaction mirror 12 and a plane mirror 13. By the transmission of the ultraviolet light of the specified wavelength region through an interference filter 16, ultraviolet light of a narrower wavelength region of 280-320 nm is obtained and made incident to the upper end surface of a quartz rod



20 through a plane mirror 17 and a condensing lens 18. The ultraviolet light of a specified wavelength is transmitted in the longitudinal direction while repeating total reflection in the quartz rod 20 and emitted from the lower end part of the rod 20 to the outside so that a photo-reaction solution L is irradiated with the ultraviolet light.